

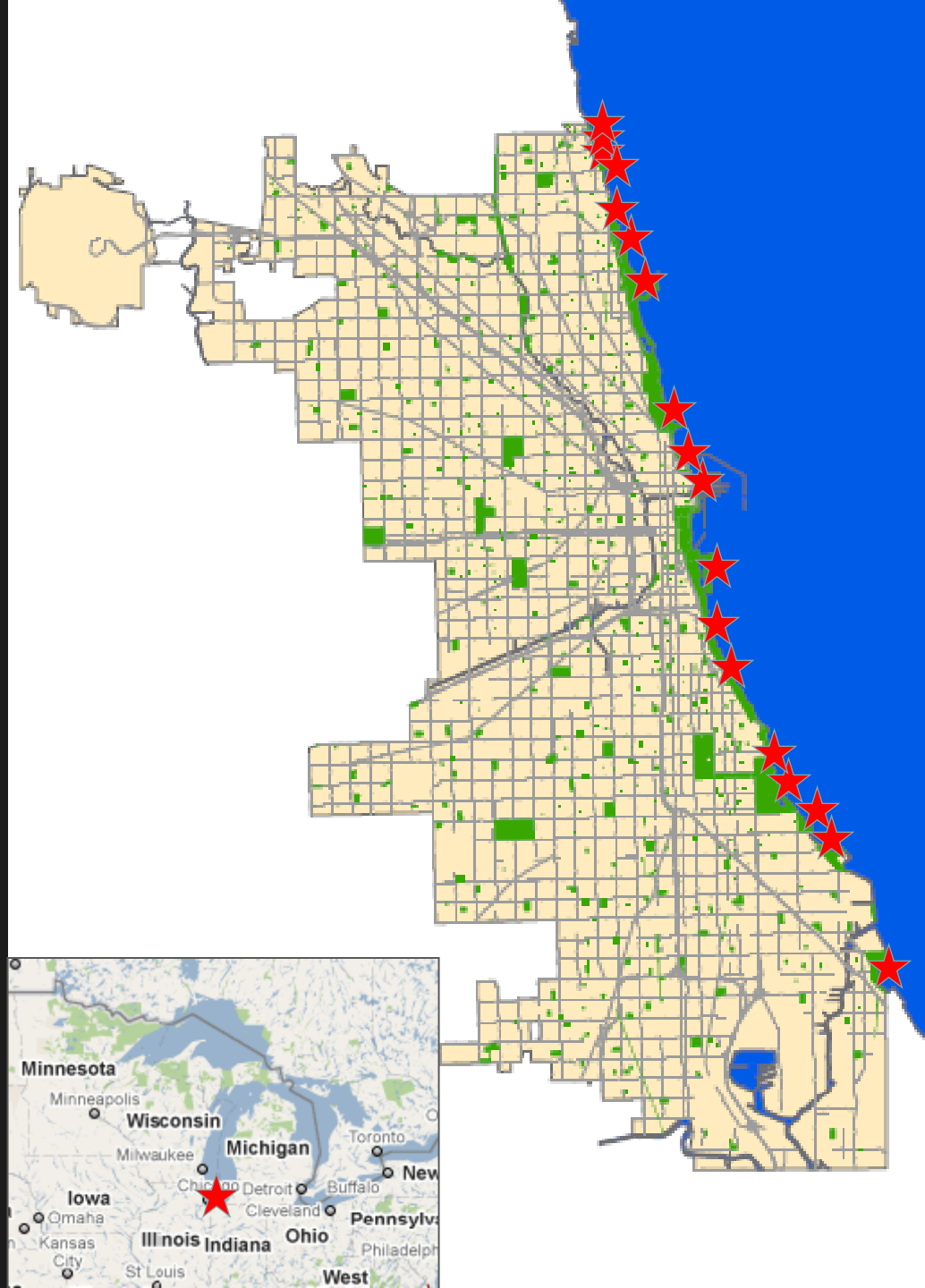
# Implementing the Great Lakes Restoration Initiative: A Beach Manager's View



*Cathy Breitenbach*  
*Director of Lakefront Operations*  
*Chicago Park District - Office of Green Initiatives*

# Chicago's Beaches

- Chicago:  
city of 2.7 million people  
metro area  $\sim$  8 million
- Chicago's lakefront: "forever  
open, free and clear"  
26 miles of public parkland
- 24 beaches, free and open for  
swimming from Memorial Day  
to Labor Day
- Beaches are owned and  
managed by the Chicago Park  
District





# Chicago's Beaches

- Our beaches serve 20 million visitors per year



Photo by: Michael Chrzastowski, Illinois State Geological Survey



# Chicago's Beach Water Quality

- CPD monitors each beach a minimum of 5 days per week.
- Weekend testing is done following an exceedance.
- We use the single sample maximum standard of 235 mpn/100 ml, and the 18-hour Colilert method for analyzing samples.
- Causes of advisories in Chicago: Gull / wildlife waste, bather load, stormwater , regional & unknown. Very rarely human sewage.



# Grooming and daily maintenance



All beaches are  
Groomed seven days per week.

Rakes with deep tines were  
specially designed for  
Chicago



Trash & recycling are  
collected in lidded  
containers to minimize the  
attraction to gulls.

# Great Lakes RESTORATION



*From [www.epa.gov](http://www.epa.gov):*

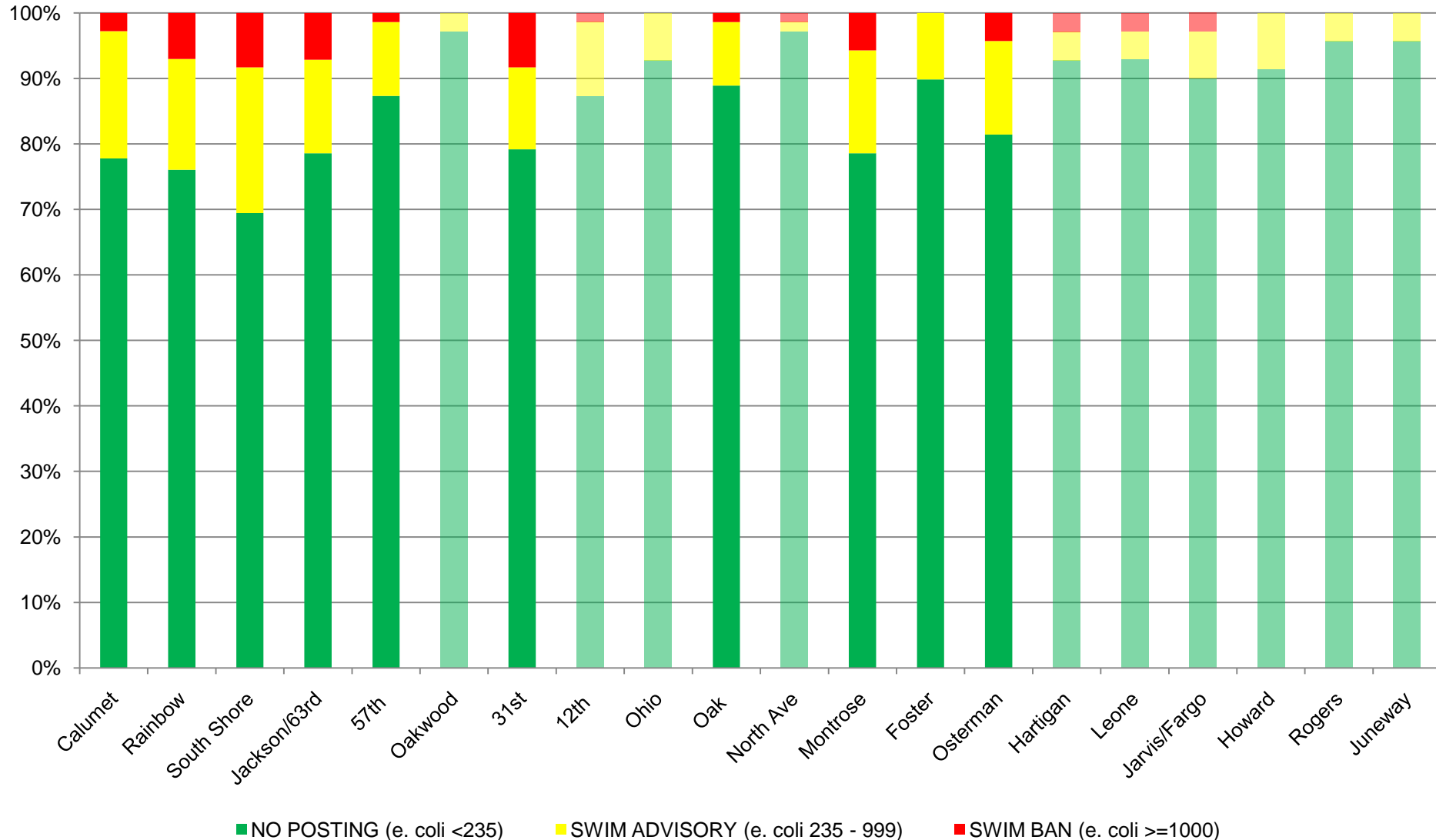
The Great Lakes Restoration Initiative is the largest investment in the Great Lakes in two decades.

A task force of 11 federal agencies developed a plan to put the president's historic initiative into action. This action plan covers fiscal years 2010 through 2014 and addresses five urgent focus areas:

- Cleaning up toxics and areas of concern;
- Combating invasive species;
- **Promoting nearshore health** by protecting watersheds from polluted run-off;
- **Restoring wetlands and other habitats**; and
- Working with partners on outreach.

# Sanitary Surveys

**2010 Monitoring Results at Chicago Beaches**  
(Beaches where sanitary surveys will take place are in bold)





# Stormwater Investigation



**South Lake Shore Drive  
MS4 system**

**Sampling stormwater outfall  
at Calumet Beach**





# Gull Management



↑ Ring-billed gull nesting colony at Dime Pier

Gulls snacking on trash at 63<sup>rd</sup> Street Beach →

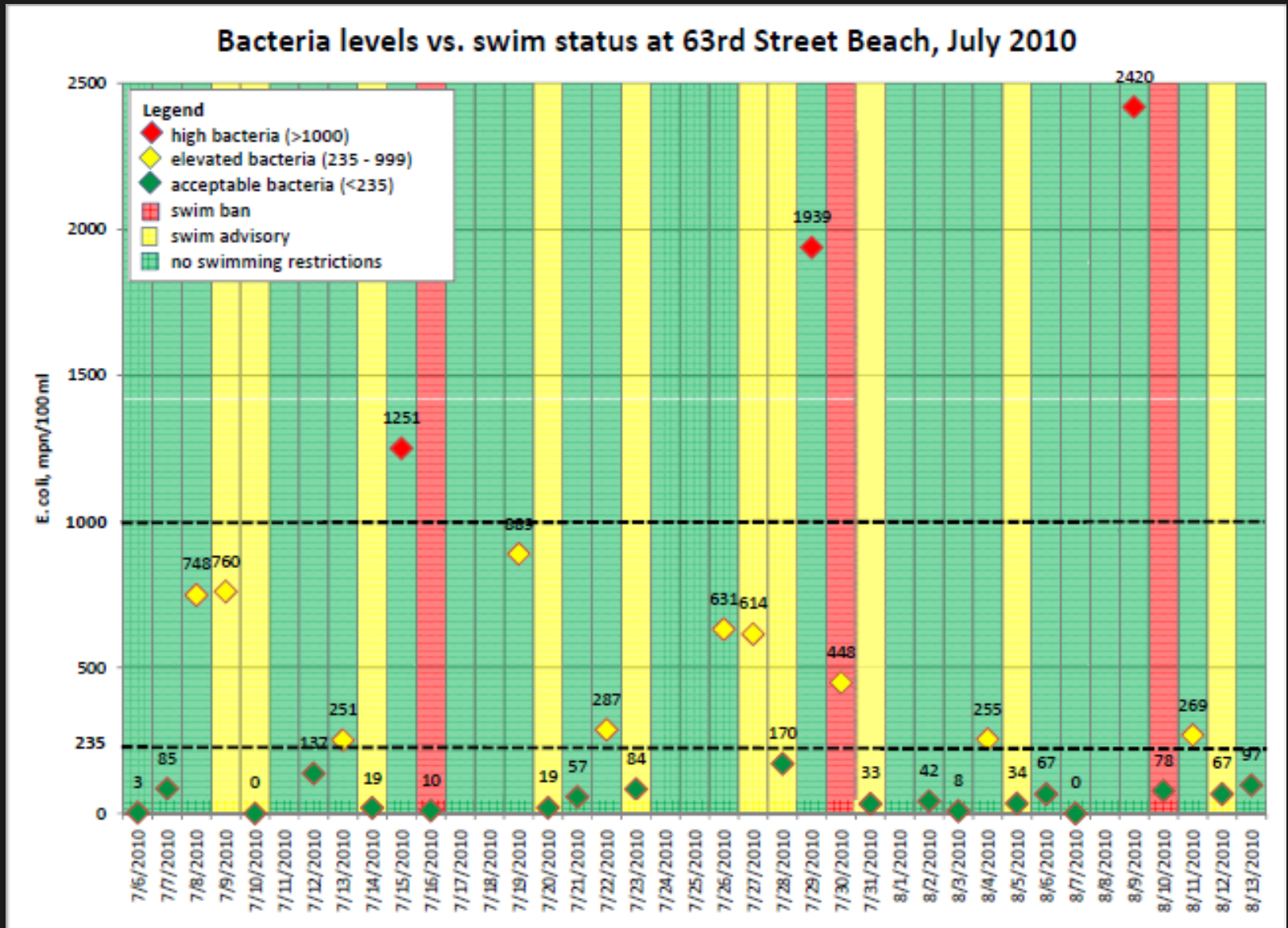




# Gull Management



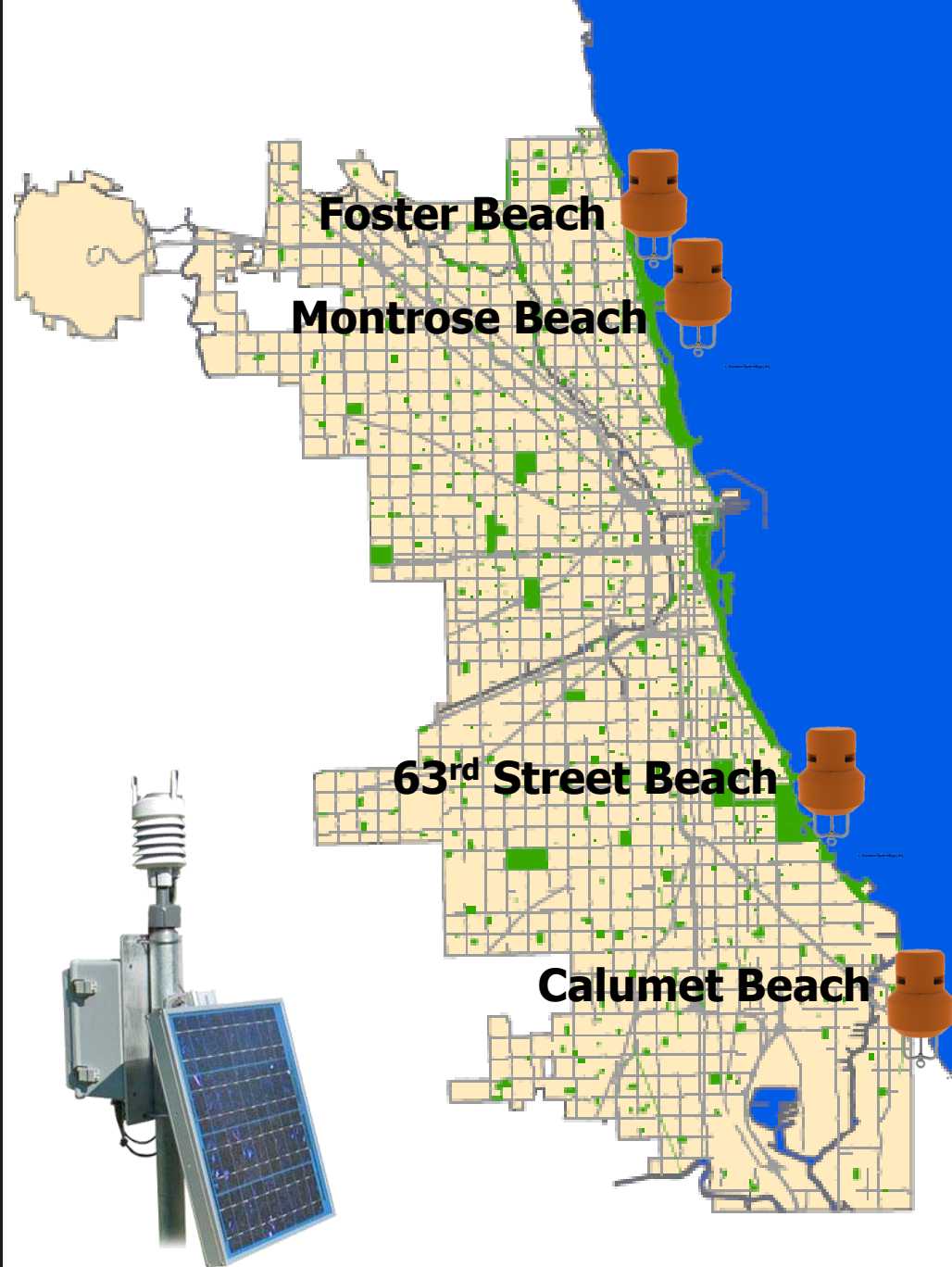
# Predictive modeling





# Modeling

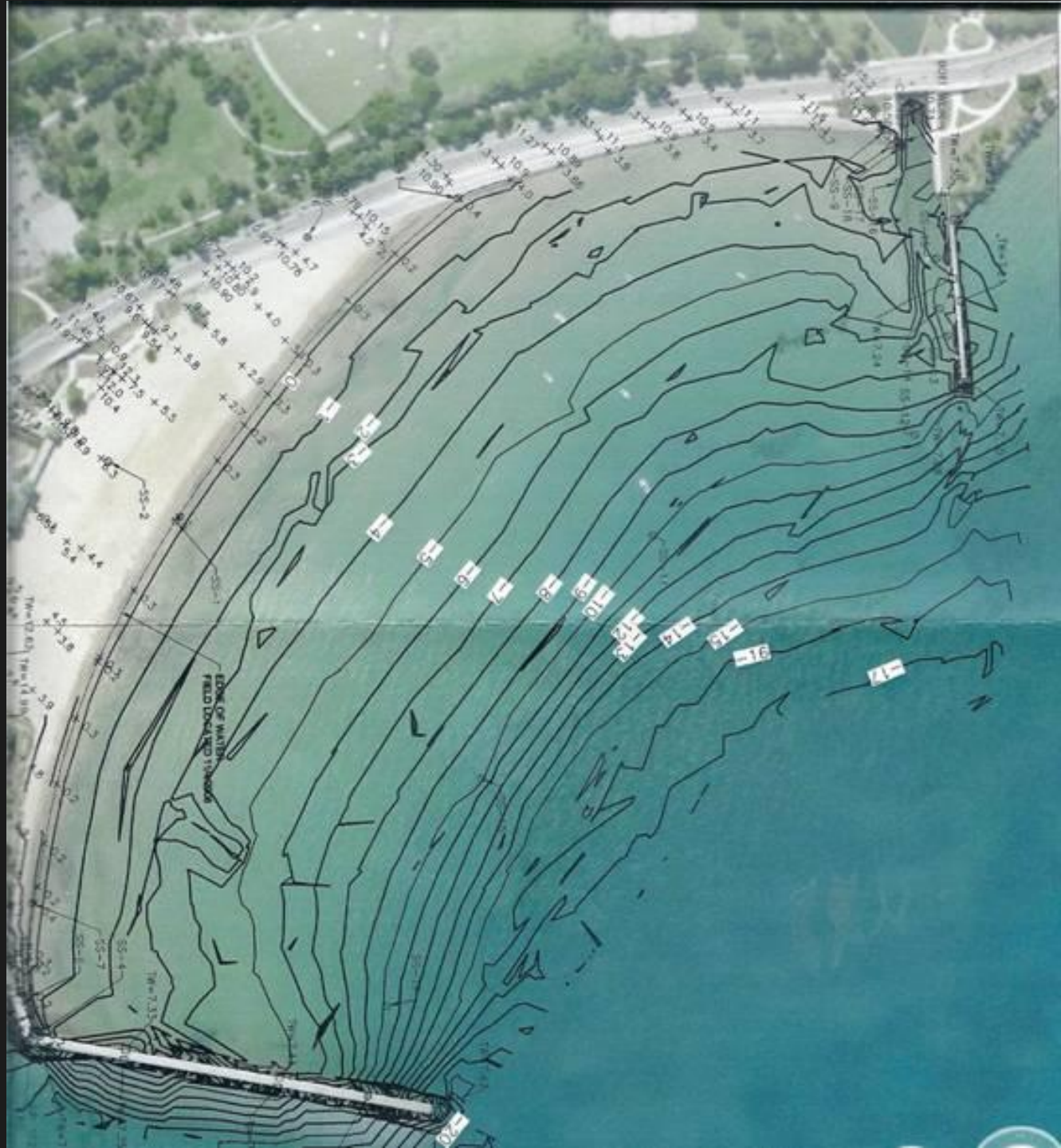
- Weather stations at four locations
- Will use buoy and pole-mounted equipment to measure environmental parameters
- USGS assistance for development of empirical model, using multivariate regression
- Will model *e. coli* levels using results from both the current culture-based method and qPCR



# Modeling

Related efforts:

- Process-based modeling
- USGS work to understand regional factors affecting water quality



# Communications: Existing

- Flag system at the beaches
- Web: [www.chicagoparkdistrict.com/beaches](http://www.chicagoparkdistrict.com/beaches)  
Illinois Dept of Public Health (Beach Guard)
- [www.facebook.com/chicagoparkdistrict](http://www.facebook.com/chicagoparkdistrict)  
[www.twitter.com/chicagoparks](http://www.twitter.com/chicagoparks)
- (312) 74-BEACH







# Communications: New Signage

Welcome to North Avenue Beach  
Please help keep the beach safe and clean.

## Beach Rules:

-  Swim only when lifeguards are on duty, and follow lifeguards' instructions.
-  Only Coast Guard approved flotation devices are permitted.
-  No smoking.
-  No pets on the beach.
-  Do not feed birds or wildlife.
-  Dispose of trash in green containers and recycling in blue containers.
-  Grill in designated areas only and dispose of coals in red barrels.
-  Keep accessible beach walks clear. No bicycling, skateboarding or rollerblading permitted.

## Swim Status Notification

-  Swimming is permitted.  
Weather conditions are fair and water quality is good.
-  Caution is advised.  
Weather conditions are unpredictable or bacteria levels are elevated.
-  Swimming is prohibited.  
Weather conditions are dangerous or bacteria levels are high.

## What causes swim advisories and swim bans?

The Chicago Park District follows the Environmental Protection Agency's guidelines for beach monitoring. Swim advisories or swim bans are issued when tests show elevated levels of bacteria in the water, which can indicate an increased risk of illness. Bans and advisories may also be issued when lifeguards observe dangerous weather conditions such as high waves or lightning.

You can do your part to keep this beach open for swimming. Research has shown a number of sources for bacteria in the water, including waste from birds and other wildlife, stormwater runoff, and even people swimming at the beach. Place all garbage in appropriate containers, do not feed birds, use waterproof sunscreen for young children, and do not swim if you are sick.

To check the current swim status, call (773) 746-6644 (746-6644) or visit [www.chicagoparkdistrict.com](http://www.chicagoparkdistrict.com) or [www.facebook.com/chicagoparkdistrict](https://www.facebook.com/chicagoparkdistrict).



CHICAGO PARK DISTRICT



Visit Chicago  
PARK DISTRICT

This beach is part of the Great Lakes ecosystem, a natural resource of international importance. For more information about Chicago's beaches, visit [www.chicagoparkdistrict.com](http://www.chicagoparkdistrict.com) or call (773) 746-PLAY (7554) or (773) 746-0001 (TTY).

# Communications: Public Education Campaign

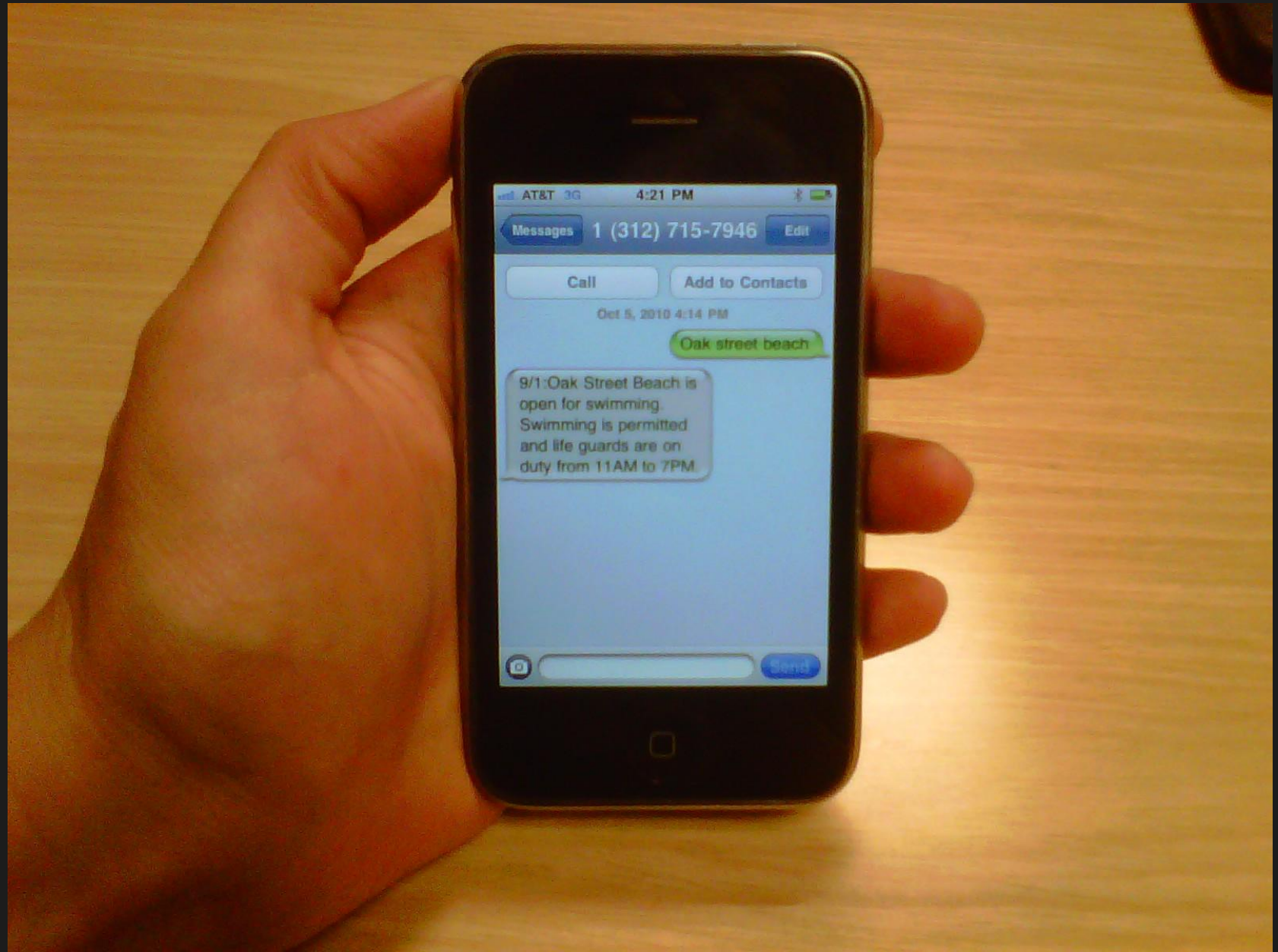
chicago park district

take a **STAND**  
in the **SAND!**  
help keep chicago's beaches clean



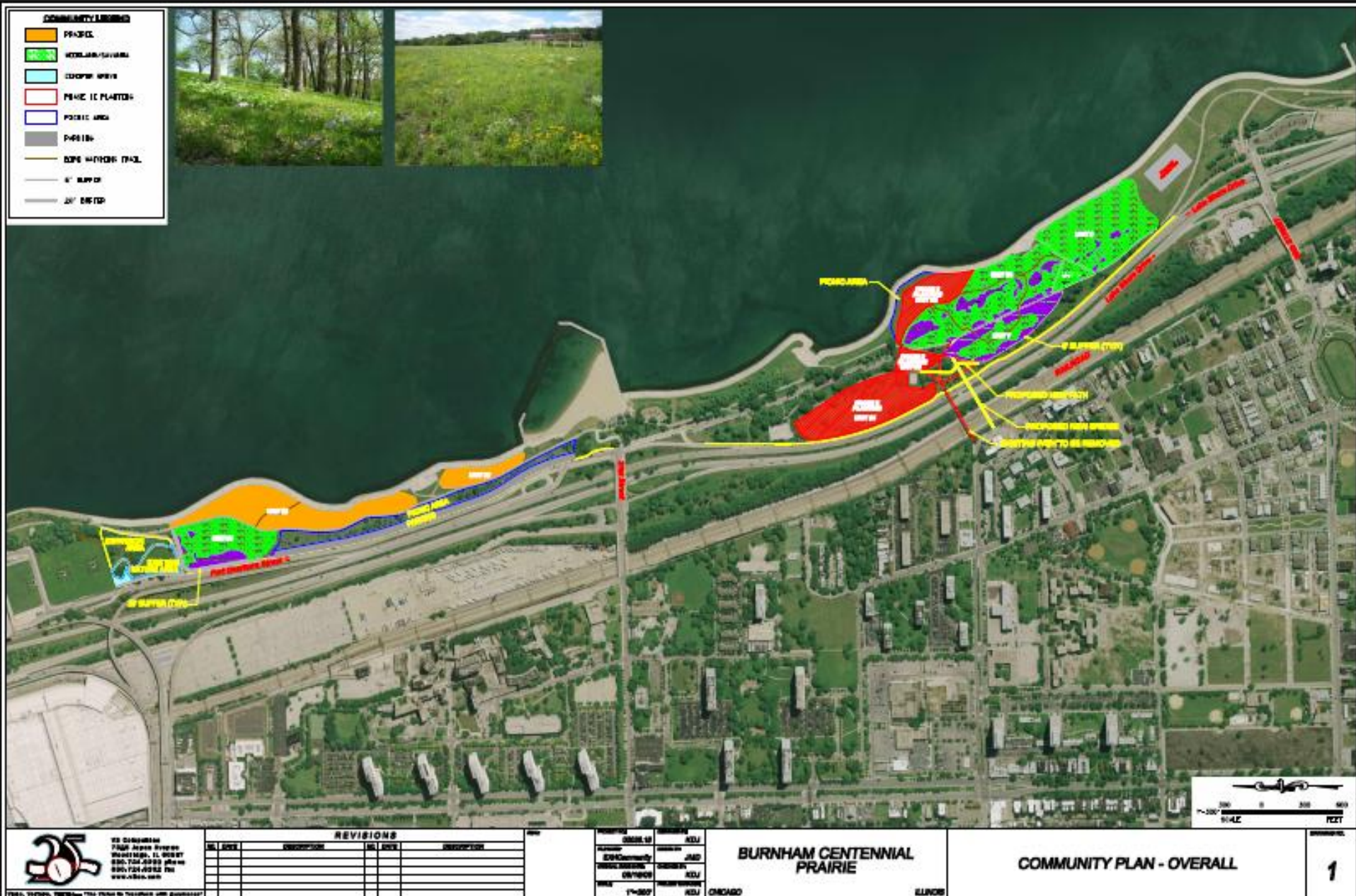
[www.chicagoparkdistrict.com](http://www.chicagoparkdistrict.com) 312.742.PLAY (7529) 312.747.2001 (TTY) 312.74.BEACH (742.3224)

# Communications: New Texting Service





# Habitat Restoration





# Thank you.



312.742.4946

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